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## CAPTION



This symbol indicates instructions or notes regarding safety issues which require particular attention.



This symbol indicates informations which are useful for correct product function.



This symbol indicates instructions or notes intended for technical and expert personnel.



This symbol indicates operations not to be effected for not compromise the correct operation of the automation.



This symbol indicates options and parameters which are only available with the indicated item.



This symbol indicates options and parameters which are not available with the indicated item.

### All right reserved

All data and specifications have been drawn up and checked with the greatest care. The manufacturer cannot however take any responsibility for eventual errors, omissions or incomplete data due to technical or illustrative purposes.

## 1. GENERAL SAFETY PRECAUTIONS



This installation manual is intended for professionally competent personnel only.

The installation, the power connections and the settings must be completed in conformity with Good Working Methods and with the regulations in force.

Before installing the product, carefully read the instructions. Bad installation could be hazardous. The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of hazard.

Before beginning the installation check that the product is in perfect condition.

Do not install the product in explosive areas and atmospheres: the presence of flammable gas or fumes represents a serious threat to safety.

The safety devices (photocells, sensitive edges, emergency stop, etc.) must be installed taking into account: the provisions and the directives in force, Good Working Methods, the installation area, the functional logic of the system and the forces developed by the automation.



Before making power connections, check that the rating corresponds to that of the mains supply. A multipolar disconnection switch with a contact opening gap of at least 3 mm must be included in the mains supply. Check that upstream of the electrical installation an adequate residual current circuit breaker and an overcurrent cut out are fitted.

When requested, connect the automation to an effective earthing system carried out as indicated by current safety regulations.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

To handle electronic parts, wear earthed antistatic conductive bracelets. The manufacturer of the motorisation



declines all responsibility in the event of components which are not compatible with the safe and correct operation of the product.

For repairs or replacements of products only original spare parts must be used.

## 2. EC DECLARATION OF CONFORMITY

Manufacturer: DITEC S.p.A.

Address: via Mons. Banfi, 3 21042 Caronno P.Ia (VA) - ITALY

declares that the control panel E2H is in conformity with the provisions of the following EC directives:

EMC Directive 2004/108/EC;

Low Voltage Directive 2006/95/EC

R&TTE Directive 1999/5/EC

Caronno Pertusella, 2010-09-09

Silvano Angaroni  
(Managing Director)

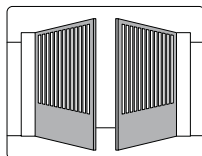
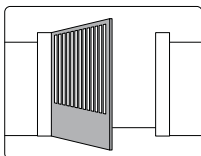
## 3. TECHNICAL DATA

	<b>ARCBH OBBI3BH OBBI3BFCH LUXO3BH LUXO4BH</b>	<b>FACIL3H FACIL3EH</b>
<b>Memory module</b>	3M1OB 3M1AR 3M1LX	3M1FC
<b>Power supply</b>	230 V~ 50/60 Hz	
<b>F1 fuse</b>	F1,6A	F1,6A
<b>Motor output</b>	24 V $\overline{\text{---}}$ 2x4,5 A max	24 V $\overline{\text{---}}$ 2x6 A max
<b>Accessories power supply</b>	24 V $\overline{\text{---}}$ 0,5 A	24 V $\overline{\text{---}}$ 0,5 A
<b>Temperature</b>	min -20 °C max 55 °C	min -20 °C max 55 °C
<b>Degree of protection</b>	IP55	IP54
<b>Memorizable radio codes</b>	100 200 [BIXMR2]	100 200 [BIXMR2]
<b>Radio frequency</b>	433,92 MHz	433,92 MHz




**NOTE:** the given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

### 3.1 Applications



#### 4. CONNECTION OF POWER SUPPLY

Before connecting the power supply, make sure the plate data correspond to that of the mains power supply. An omnipolar disconnection switch with minimum contact gaps of 3 mm must be included in the mains supply. Check that upstream of the electrical installation there is an adequate residual current circuit breaker and a suitable overcurrent cutout.

Use a H05RN-F 3G1,5 or H05RR-F 3G1,5 type electric cable and connect to the terminals L (brown), N (blue),  (yellow/green) in the automation.

Secure the cable using the special cable clamp and remove the outer sheath near the terminal only.

Connection to the mains power supply, in the section outside the automation, is made with independent channels and separated from the connections to the control and safety devices.

The channels must penetrate a few centimetres inside the automation thorough a hole maximum Ø16 mm.

Make sure there are no sharp edges that may damage the power supply cable.

Make sure that the mains power supply (230 V) conductors and the accessory power supply (24 V) conductors are separate.

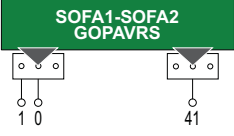
## 5. COMMANDS

Command		Function	Description
1 — 5	N.O.	STEP BY STEP	<p>Selecting <b>BC</b> ▶ <b>CS</b> ▶ <b>I-5</b>, the closure of the contact activates a closing or opening operation in the sequence: open-stop-close-open.</p> <p><i>Warning: if automatic closing is enabled, the duration of the stop is selected via the selection <b>AP</b> ▶ <b>SS</b>.</i></p>
		OPENING	<p>Selecting <b>BC</b> ▶ <b>CS</b> ▶ <b>I-3</b>, the closure of the contact activates an opening operation.</p>
1 — 6	N.C.	SAFETY STOP	<p>Selecting <b>BC</b> ▶ <b>64</b> ▶ <b>I-6</b>, the opening of the safety contact stops and prevents any movement.</p> <p><i>Note: to set the different contact safety functions, see the <b>AP</b> ▶ <b>SM</b> parameter settings.</i></p>
1 — 6	N.O.	CLOSING	<p>Selecting <b>BC</b> ▶ <b>64</b> ▶ <b>I-4</b>, the closure of the contact activates a closing operation.</p>
1 — 8	N.C.	REVERSAL SAFETY CONTACT	<p>The opening of the safety contact triggers a reversal of motion (re-opening) during a closing operation.</p> <p>Selecting <b>BC</b> ▶ <b>50</b> ▶ <b>ON</b>, with the automation idle, the opening of the contact prevents any operation.</p> <p>Selecting <b>BC</b> ▶ <b>50</b> ▶ <b>OF</b>, with the automation idle, the opening of the contact prevents the closing operation only.</p>
1 — 9	N.C.	STOP	<p>Opening the safety contact stops the current operation.</p> <p><i>Note: the flashing light flashes.</i></p>
1 — 9	N.O.	HOLD TO RUN FUNCTION	<p>Selecting <b>BC</b> ▶ <b>CS</b> ▶ <b>I-3</b> and <b>BC</b> ▶ <b>64</b> ▶ <b>I-4</b>, the permanent opening of the safety contact enables the hold to run function.</p> <p>In this state, the opening (1-5) and closing (1-6) controls function only if held in the pressed position, and the automation stops when the controls are released.</p> <p>Any safety devices, plus the automatic closing, are disabled.</p>
1 — 20	N.O.	PARTIAL OPENING	<p>Selecting <b>BC</b> ▶ <b>P2</b> ▶ <b>P3</b>, the closure of the contact activates a partial opening operation of the door wing commanded by motor 1, and the duration is fixed by adjustment <b>BA</b> ▶ <b>RP</b>.</p> <p><i>Warning: if automatic closing is enabled, the duration of the stop is selected via the adjustment <b>AP</b> ▶ <b>TP</b>.</i></p>
1 — 20	N.C.	AUTOMATIC CLOSING	<p>Selecting <b>BC</b> ▶ <b>P2</b> ▶ <b>I-2</b>, the permanent closure of the contact enables automatic closing.</p>

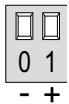









**WARNING:** Make a jumper on all NC contacts if not in use. The terminals with the same number are equal

## 5.1 SOFA1-SOFA2 or GOPAVRS self-controlled safety edge



Command	Function	Description
	SAFETY TEST	<p>Insert the electronic card SOFA1-SOFA2 or GOPAVRS in the housing AUX on the control panel.</p> <p>Selecting <b>AP</b> ► <b>ET</b> ► <b>ON</b>, the terminal 41 activates a safety edge test before each operation. If the test fails, an alarm message is visualised on the display.</p>
<b>1</b> — <b>6</b>	N.C.	<p>OPENING SAFETY DEVICE</p> <p>Selecting <b>AP</b> ► <b>DE</b> ► <b>SE</b>, connect the output contact of device SOFA1-SOFA2 to terminals 1-6 on the control panel (in series with the photocell output contact, if installed).</p>
<b>1</b> — <b>8</b>	N.C.	<p>REVERSAL SAFETY CONTACT</p> <p>Selecting <b>AP</b> ► <b>DB</b> ► <b>SE</b>, connect the output contact of device SOFA1-SOFA2 to terminals 1-8 on the control panel (in series with the photocell output contact, if installed).</p>

## 6. OUTPUT AND ACCESSORIES

Output	Value - Accessories	Description
	24 V $\overline{\text{=}}$ / 0,5 A	Power supply output for external accessories, including automation status lamp. Electronically protected output.
1  13	24 V $\overline{\text{=}}$ / 3 W	<b>Automation status lamp (proportional).</b> The light switches off when the automation is closed; the light switches on when the automation is open; the light flashes with a variable frequency while the automation is operating.
0  14	<b>LAMPH</b> 24 V $\overline{\text{=}}$ / 25 W	<b>Flashing light (LAMPH).</b> Selecting <b>BC</b> $\blacktriangleright$ <b>FF</b> $\blacktriangleright$ <b>ON</b> , the flashing light activates simultaneously with the opening and closing operation. <i>NOTE: with automatic closing enabled, there is a pre-flashing of 3 s that cannot be regulated.</i>
0  14	24 V $\overline{\text{=}}$ / 25 W max.	<b>Courtesy light.</b> Selecting <b>BC</b> $\blacktriangleright$ <b>FF</b> $\blacktriangleright$ <b>OF</b> , it is possible to connect a courtesy light that activates each time a total or partial opening command or closing command is received. The duration of the light can be regulated via the adjustment <b>BA</b> $\blacktriangleright$ <b>LU</b> and <b>BA</b> $\blacktriangleright$ <b>LG</b> .
0  15	24 V $\overline{\text{=}}$ / 1,2 A	<b>Electric block 24V.</b>
0  15	12V $\sim$ / 15 W	<b>Electric lock 12 V.</b> Connect the supplied 8.2 $\Omega$ / 5W resistance in series.
<b>AUX</b>		The control panel is fitted with a housing for a plug-in card, such as radio receivers, magnetic spirals, etc. The action of the card can be selected via the selection <b>BC</b> $\blacktriangleright$ <b>AM</b> . <i>WARNING: the plug-in cards must be inserted and removed with the power supply disconnected.</i>
	<b>Storage module</b>	The storage module allows remote controls to be stored and the type of control panel application to be defined (see TECHNICAL DETAILS on page 4). If the control panel is replaced, the storage module being used can be inserted in the new control panel. <i>WARNING: the storage module must be inserted and removed with the power supply disconnected.</i>
	<b>BATK1</b> 2 x 12 V / 2 Ah	<b>Battery operating.</b> The batteries are kept charged when the power supply is on. If the power supply is off, the control panel is powered by the batteries until power is re-established or until the battery voltage drops below the safety threshold. If this occurs, the control panel turns off. <i>WARNING: the batteries must always be connected to the control panel for charging. Periodically check the efficiency of the batteries.</i> <i>NOTE: the operating temperature of the rechargeable batteries is approximately +5°C/+40°C.</i>



## 7. SELECTION





	Description	OFF 	ON 
JR1	Display mode setting.	Visualization mode. It is only possible to visualize the values and parameters present.	Maintenance mode. It is possible to visualize and modify the values and parameters present. The entry in maintenance mode is indicated by the permanent switching on of the right-hand point.
JR5	Built-in radio receiver.	Disabled	Enabled

## 8. SIGNALS

LED	ON	Flashing
POWER 	24 V= power supply.	 Indicates the transfer of data during DMCS programming.

## 9. ADJUSTMENT



**NOTE:** *before making all the automation adjustments, insert the dedicated memory module and press  , or load the  ►  configuration applying to the automation installed (see options). When the power is connected or in the case of motor non-selection, the display will block all operations and give an  error message.*



**WARNING:** *the pressure on the keys can be quick (less than 2 s) or prolonged (longer than 2 s). Unless specified otherwise, quick pressure is intended.*

*To confirm the setting of a parameter, prolonged pressure is necessary.*

### 9.1 Switching on and off

The procedure to switch on the display is as follows:

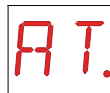
- press the ENTER key



- start of display functioning check



- visualisation of first level menu



The procedure to switch off the display is as follows:

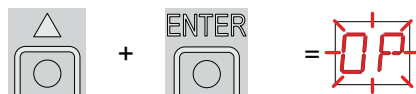
- press the ESC key and keep it pressed



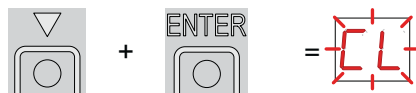
**NOTE:** *the display switches off automatically after 60 s of inactivity.*

### 9.2 Key combinations

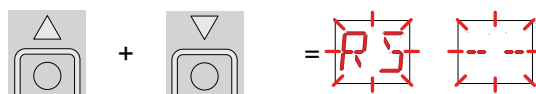
The simultaneous pressing of the keys ▲ and ENTER performs an opening command.



The simultaneous pressing of the keys ▼ and ENTER performs a closing command.



The simultaneous pressing of the keys ▲ and ▼ performs a POWER RESET command.  
(Interruption of the power supply and restart of the automation).









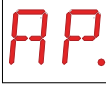
### 9.3 Main menu

- use the keys ▲ and ▼ to select the required function



- press the ENTER key to confirm



Display	Description
	<b>AT - Automatic Configurations.</b> The menu allows you to manage the automatic configurations of the control panel.
	<b>BC - Basic Configurations.</b> The menu allows to visualise and modify the main settings of the control panel.
	<b>BA - Basic Adjustments.</b> The menu allows to visualise and modify the main adjustments of the control panel.
	<b>RO - Radio Operations.</b> The menu allows you to manage the radio operations of the control panel.
	<b>SF - Special Functions.</b> The menu allows to set the password and manage the special functions in the control panel.
	<b>CC - Cycles Counter.</b> The menu allows to visualise the number of operations carried out by the automation, and manage the maintenance interventions.
	<b>AP - Advanced Parameters.</b> The menu allows to visualise and modify the advanced settings and adjustments of the control panel.

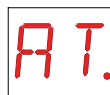
After confirming the selection, you access the second level menu.



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.4 Second level menu - AT (Automatic Configurations)

- use the keys ▲ and ▼ to select the required function



- press the ENTER key to confirm



The procedures to activate the functions are described in the table.

Display	Description
	<p>H0 - Predefined setting for residential use 0.</p> <p> </p> <p>            This selection loads predefined values for certain standard parameters:            AC - enabling of automatic closing : disabled            C5 - step-by-step/opening command operation : step-by-step            RM - remote control operation : step-by-step            AM - AUX coupling board operation : step-by-step            SS - selection automation status at start up : open         </p>
	<p>H1 - Predefined setting for residential use 1.</p> <p> </p> <p>            This selection loads predefined values for certain standard parameters:            AC - enabling of automatic closing : enabled            TC - setting of automatic closing time : 1 minute            C5 - step-by-step/opening command operation : step-by-step            RM - remote control operation : step-by-step            AM - AUX coupling board operation : step-by-step            SS - selection automation status at start up : closed         </p>
	<p>C0 - Predefined setting for condominium use 0.</p> <p> </p> <p>            This selection loads predefined values for certain standard parameters:            AC - enabling of automatic closing : enabled            TC - setting of automatic closing time : 1 minute            C5 - step-by-step/opening command operation : opening            RM - remote control operation : opening            AM - AUX coupling board operation : opening            SS - selection automation status at start up : open         </p>
	<p>RD - Resetting the basic settings (SETTINGS RESET).</p> <p> </p>



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.5 Second level menu - BC (Basic Configurations)






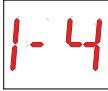











- use the keys ▲ and ▼ to select the required function



- press the ENTER key to confirm



Display	Description		
	VS - Selecting mechanical stops verification. When enabled (ON), with every power supply connection the automation automatically checks the mechanical opening and closing end stops and/or the stop limit switches during opening and closing operation at the speed set with the adjustment  ► . During the learning operation, the display visualizes the message .	 OFF	 ON
	NW - Selecting number of door wings.	 1	 2
	AC - Enabling of automatic closing.	 OFF	 ON
	C5 - Step-by-step/opening command operation.	 STEP-BY-STEP	 OPENING
	RM - Radio receiver functionality.	 STEP-BY-STEP	 OPENING
	AM - AUX coupling board operation.	 STEP-BY-STEP	 OPENING
	SS - Selection of automation status at activation. Indicates how the control panel considers the automation at the time of switch-on, or after a POWER RESET command.	 OPEN	 CLOSED
	EL - Enablement of electric lock release stroke. When an electric lock is present, the enablement of the release stroke is recommended.	 OFF	 ON
	SO - Enabling reversal safety contact functionality. When enabled (ON) with the automation idle, if the contact 1-8 is open, all operations are prevented. When disabled (OFF) with the automation idle, if the contact 1-8 is open, it is possible to activate the opening operation.	 OFF	 ON

Display	Description		
	NI - Activation of NIO electronic anti-freeze system. When enabled (ON), it maintains the efficiency of the motors even in low temperatures. <i>Note: for correct operation, the control panel must be exposed to the same ambient temperature as the motors.</i>	 OFF	 ON
	64 - Functioning of safety stop/closing command.	 STOP	 CLOSING
	P2 - Functioning of partial opening command contact 1-20. P3 - Partial opening command. 1-2 - Enablement of automatic closing	 PARTIAL OPENING	 AUTOMATIC CLOSING
	EO - Functioning of electric lock/electric brake. SC - Functioning of electric lock (functioning time set via adjustment  ►  ) SF - Functioning of electric magnet powered with automation closed	 ELECTRIC LOCK	 ELECTRIC MAGNET
	FF - Setting function of 0-14 exit. OF - Courtesy light ON - Flashing light	 COURTESY LIGHT	 FLASHING LIGHT



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.6 Second level menu - BA (Basic Adjustments)







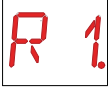



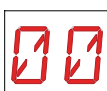









- use the keys ▲ and ▼ to select the required function



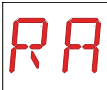


































- press the ENTER key to confirm








































**WARNING:** the gap between the adjustment values of the parameters may vary according to the type of automation.

Display	Description		
	MT - Selection of automation type. NO - None O3 - OBBI-ARC F3 - FACIL L3 - LUXO   <b>WARNING:</b> it is essential to set the type of automation <b>before</b> making the adjustments.	 NONE   FACIL	 OBBI-ARC   LUXO
	R1 - Adjustment of motor 1 thrust on obstacles. [%] The control panel is fitted with a safety device which, when it detects an obstacle: <ul style="list-style-type: none"> <li>- in opening, stops the movement with a disengagement operation;</li> <li>- in closing, before the deceleration, inverts the movement;</li> <li>- in closing, during the deceleration, stops or inverts the movement according to the type of limit switch installed.</li> </ul>	 0%	 99%
	R2 - Adjustment of motor 2 thrust on obstacles. [%] The control panel is fitted with a safety device which, when it detects an obstacle: <ul style="list-style-type: none"> <li>- in opening, stops the movement with a disengagement operation;</li> <li>- in closing, before the deceleration, inverts the movement;</li> <li>- in closing, during the deceleration, stops or inverts the movement according to the type of limit switch installed.</li> </ul>	 0%	 99%
	RP - Adjustment of the partial opening measurement. [%] Adjusts the percentage of operation in relation to the total opening of the automation.	 10%	 99%
	FA - Selection of opening limit switch mode. NO - None RA - Deceleration limit switch (after the activation, the door wing slows down its movement) SX - Stop limit switch (after the activation, the door wing stops its movement) PX - Proximity limit switch (after the activation, the door wing continues as far as the end stop)	 NONE   STOP	 DECELERATION   PROXIMITY

Display	Description	
	FC - Selection of closing limit switch mode. NO - None RA - Deceleration limit switch (after the activation, the door wing slows down its movement) SX - Stop limit switch (after the activation, the door wing stops its movement) PX - Proximity limit switch (after the activation, the door wing continues as far as the end stop)	<div>   </div> <div>           NONE      DECELERATION         </div> <div>   </div> <div>           STOP      PROXIMITY         </div>
	VA - Setting opening speed. [V]	<div>   </div> <div>           MIN      MAX         </div>
	VC - Setting closing speed. [V]	<div>   </div> <div>           MIN      MAX         </div>
	VR - Setting acquisition manoeuvre speed. [V]  WARNING: the acquisition manoeuvre speed can only be adjusted with the setting    .	<div>   </div> <div>           MIN      MAX         </div>
	TC - Setting automatic closing time. [s] Adjustment occurs with intervals of varying sensitivity. - from 0 to 59 sec with 1 sec intervals; - from 1 to 2 min with 10 sec intervals.	<div>   </div> <div>           0 SECONDS      59 SECONDS         </div> <div>   </div> <div>           1 MINUTE      2 MINUTE         </div>
	M1 - Setting motor 1 manoeuvre time. [s] Adjustment, in seconds, of the total manoeuvre time for motor 1.  WARNING: adjustment occurs with a sensitivity interval of 0.5 sec, indicated by the switching on of the right-hand point. Example:  = 7 seconds  = 7,5 seconds	<div>   </div> <div>           MIN      MAX         </div>
	M2 - Setting motor 2 manoeuvre time. [s] Adjustment, in seconds, of the total manoeuvre time for motor 2.  WARNING: adjustment occurs with a sensitivity interval of 0.5 sec, indicated by the switching on of the right-hand point. Example:  = 7 seconds  = 7,5 seconds	<div>   </div> <div>           MIN      MAX         </div>



Display	Description	
	TR - Setting motor 1 closing delay time. [s] Adjustment, in seconds, of the delay time for starting the manoeuvre of motor 1, in relation to motor 2.	 MIN  MAX
	TO - Impostazione tempo di ritardo motore 2 in apertura. [s] Regolazione in secondi del tempo di ritardo della partenza di manovra del motore 2 rispetto al motore 1.	 MIN  MAX
	LU - Setting switch-on time for courtesy light. [s] Adjustment occurs with intervals of varying sensitivity. - from 0 to 59 sec with 1 sec intervals; - from 1 to 2 min with 10 sec intervals; - from 2 to 3 min with 1 min intervals; NO - Disabled ON - Permanent switch-on, switch-off using radio command   WARNING: the courtesy light switches on at the start of each operation.	 DISABLED  1 SECOND  59 SECONDS  1 MINUTE  2 MINUTES  3 MINUTES  ON
	LG - Setting switch-on time for independent light. [s] Adjustment occurs with intervals of varying sensitivity. - from 0 to 59 sec with 1 sec intervals; - from 1 to 2 min with 10 sec intervals; - from 2 to 3 min with 1 min intervals; NO - Disabled ON - Switch-on and switch-off using radio command   WARNING: the switching on of the light does not depend on the start of an operation, but it is possible to control it separately using the relevant transmitter key.	 DISABLED  1 SECOND  59 SECONDS  1 MINUTE  2 MINUTES  3 MINUTES  ON
	LR - Setting electric lock release time. [s] ON - Active throughout the entire operation	 MIN  MAX  ON
	TS - Setting renewal of automatic closing time after safety release. [%]	 MIN  MAX

Display	Description		
	WO - Setting opening pre-flashing time. [s] Adjustment, in seconds, of the lead time for the switch-on of the flashing light, in relation to the start of the manoeuvre from a voluntary command.	 MIN	 MAX
	WC - Setting closing pre-flashing time. [s] Adjustment, in seconds, of the lead time for the switch-on of the flashing light, in relation to the start of the manoeuvre from a voluntary command.	 MIN	 MAX



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.7 Second level menu - RO (Radio Operations)

- use the keys ▲ and ▼ to select the required function

















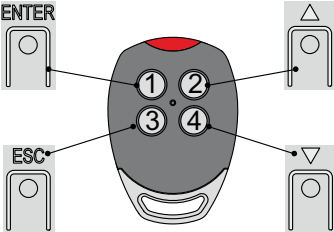







- press the ENTER key to confirm



The procedures to activate the functions are described in the table.

Display	Description		
	<p>SR - Transmitter memory storage.</p> <p>ENTER →  →  →  →  →  ...x2, x3...  </p> <p>It is possible to directly access the <i>Transmitter memory storage</i> menu with the display switched off, but only with <i>Display visualization mode</i> set at 00 or 03:</p> <ul style="list-style-type: none"> <li>- by transmitting a remote control not present in the memory,</li> <li>- by transmitting an unstored channel of a remote control already present in the memory.</li> </ul>		
	<p>ER - Deleting a single transmitter.</p> <p>ENTER 2 s →  → </p>		
	<p>EA - Total memory deleting.</p> <p>ENTER 2 s →  → ENTER 2 s</p>		
	<p>EC - Deleting a single code. <b>(FUTURE USE)</b></p>		
	<p>RE - Setting memory opening from remote control.</p> <p>When enabled (ON) remote programming is activated. To memorise new transmitters without using the control panel, press and hold down the PRG key of an already-memorised GOL4 transmitter for 5 seconds until the LED switches on (within the capacity of the receiver) and press any CH key of the new transmitter.</p> <p><b>NOTE: make sure that undesired transmitters are not accidentally memorized.</b></p>	 OFF	 ON
	<p>MU - Setting the maximum number of transmitters that can be memorized on a memory module.</p> <p>It is possible to memorise up to 100 or 200 rolling code transmitters.</p> <p><b>NOTE: it is necessary to set  →  to allow the system configuration to be saved on the memory module</b></p>	 200	 100

Display	Description	
   	<p>C1 - Setting key 1 function of memorized transmitter.  C2 - Setting key 2 function of memorized transmitter.  C3 - Setting key 3 function of memorized transmitter.  C4 - Setting key 4 function of memorized transmitter.</p> <p>NO - None  1-3 - Opening command  1-4 - Closing command  1-5 - Step-by-step command  P3 - Partial opening command  LG - Courtesy light status change command  1-9 - STOP command</p> <p> <b>WARNING:</b> 1-3 (opening) and 1-5 (step-by-step) are binary options and are dependent by the   selection.</p>	<div>   </div> <div> <p>NONE</p>   </div> <div> <p>CLOSING</p>   </div> <div> <p>PARTIAL</p>  <p>STOP</p> </div> <div> <p>OPENING</p> <p>STEP-BY-STEP</p> <p>COURTESY LIGHT</p> </div>
	<p>RK - Navigation via transmitter keyboard.</p> <p>With the display switched off, quickly type the sequence of keys ③ ③ ② ④ ① using the desired memorized transmitter.</p> <p>Note: it is recommended to use a dedicated transmitter.</p> <p> <b>WARNING:</b> during navigation via transmitter keyboard, NONE of the memorized transmitters are active.</p> <p>To test the new configuration, switch off the display and give an open command using key ③.</p>  <p>Navigation via transmitter keyboard is automatically disabled after 4 minutes of inactivity or by setting  .</p>	<div>   </div> <div> <p>OFF</p> <p>ON</p> </div>

 **Warning:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.8 Second level menu - SF (Special Functions)























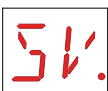












- use the keys ▲ and ▼ to select the required function




















- press the ENTER key to confirm



The procedures to activate the functions are described in the table.

Display	Description
	<p>SP - Setting the password</p> <p>  ►  ►   ►  ►  ►  </p> <p><b>Note:</b> this is only possible when the password is not set. The setting of the password prevents unauthorised personnel from accessing selections and adjustments.</p> <p><b>It is possible to annul the set password by selecting the sequence JR1=ON, JR1=OFF, JR1=ON.</b></p>
	<p>IP - Inserting the password.</p> <p>  ►  ►   ►  ►  ►  </p> <p><b>Note:</b> this is only possible when the password is set. When the password is not inserted, it is possible to access the visualisation mode regardless of the selection made with JR1. When the password is inserted, it is possible to access the maintenance mode.</p>
	<p>RD - Resetting the basic settings (SETTINGS RESET).</p> <p>  ►  </p>
	<p>EU - Deleting of the user configurations and the last configuration set present in the memory module.</p> <p>  ►  </p>
	<p>SV - Saving user configuration.</p> <p>  ►  ►   ►  ►  ►  </p> <p>Selecting  ►  ►  it is possible to save up to 2 personalised configurations in the memory positions  and  only with the storage module present on the control panel.</p>

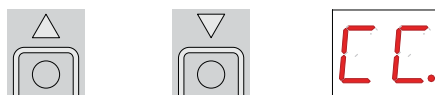
Display	Description
	<p>RC - Loading configuration.</p> <p>       </p> <p>It is possible to load the configurations previously saved, or load the predefined settings available in the memory positions <b>01</b>, <b>02</b>, <b>03</b> and <b>04</b>. The predefined settings are as follows:</p> <p> <b>01</b> : OBBI  <b>02</b> : FACIL  <b>03</b> : LUXO  <b>04</b> : ARC </p> <p>Loading a predefined setting, standard average values are automatically set for certain parameters (type of automation, operation speed, operation times and deceleration times).</p>
	<p>RL - Loading the last configuration set</p> <p>  <b>NOTE:</b> the control panel automatically saves the last configuration set, and keeps it memorised in the storage module. In the event of a fault or the replacement of the control panel, it is possible to restore the last configuration of the automation by inserting the storage module and loading the last configuration set. </p> <p>    </p>
	<p>CU - Viewing the electronic panel's firmware version.</p> <p>    = Release 0.3.4 (example) </p> <p>  <b>Note:</b> view only. </p>



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.9 Second level menu - CC (Cycles Counter)

- use the keys ▲ and ▼ to select the required function



- press the ENTER key to confirm



The procedures to activate the functions are described in the table.

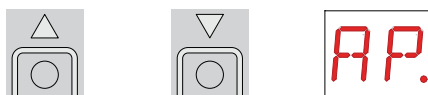
Display	Description	
	CV - View total manoeuvres counter. = 241.625 manoeuvres (example) <div style="background-color: #4a7ebb; color: white; padding: 5px; margin-top: 5px;"> <b>Note: view only.</b> </div>	
	CA - Setting the maintenance alarm interval. (max 500.000 partial manoeuvres) = 08 - 08 50 00 = 85.000 manoeuvres (ex) <div style="margin-left: 150px;">  = 50  <div style="margin-left: 150px;">  = 00           </div> </div> <p>It is possible to set the required number of operations for the signalling of the maintenance alarm.</p>	
	OA - Selecting maintenance alarm viewing mode. 00 - Display (display alarm message ) 01 - Flashing light (when automation is closed it flashes 4 times every 60 minutes) 02 - Open gate indicator light (when automation is closed it flashes 4 times every 60 minutes)	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;"> <p>DISPLAY</p> </div> <div style="text-align: center;"> <p>FLASHING</p> </div> </div> <div style="text-align: center; margin-top: 10px;"> <p>INDICATOR</p> </div> </div>
	CP - View partial manoeuvres counter. = 71.625manoeuvres (example) <div style="background-color: #4a7ebb; color: white; padding: 5px; margin-top: 5px;"> <b>Note: view only.</b> </div>	
	ZP - Resetting partial manoeuvres counter. <p>To ensure correct operation, it is recommended to reset the partial manoeuvres counter:</p> <ul style="list-style-type: none"> <li>- after each maintenance intervention,</li> <li>- after each setting of the maintenance alarm interval.</li> </ul>	



**Warning:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 9.10 Second level menu - AP (Advanced Parameters)

- use the keys ▲ and ▼ to select the required function



























- press the ENTER key to confirm


















































**i** **WARNING:** the gap between the adjustment values of the parameters may vary according to the type of automation.

**i** Given the complexity of the parameters, use of the *Advanced Parameters* menu is recommended only for qualified technical personnel.

Display	Description	
	AA - Activating advanced parameters menu.  <b>i</b> <b>NOTE:</b> activation necessary before being able to scroll through the AP menu.	 OFF  ON
	ET - Enabling of safety test (SOFA1-A2 card).	 OFF  ON
	DO - Setting of disengagement on obstacle during opening. [s]	 MIN  MAX
	DC - Setting of disengagement on obstacle during closing. [s]	 MIN  MAX
	PP - Step-by-step sequence with commands 1-5. OFF - Opening-Stop-Closing-Opening ON - Opening-Stop-Closing-Stop-Opening	 OFF  ON
	S5 - Duration of STOP in step-by-step sequence with commands 1-5.	 TEMPORARY  PERMANENT
	R9 - Enablement of automatic closing after command 1-9 (STOP). When enabled (ON), after a command 1-9 the automation carries out the automatic closing (if enabled), after the set time.	 OFF  ON
	TA - Adjustment acceleration phase. [%]	 FAST  SLOW



Display	Description	
	TP - Setting of automatic closing time after partial opening. [s] Adjustment occurs with intervals of varying sensitivity. - from 0 to 59 sec with 1 sec intervals; - from 1 to 2 min with 10 sec intervals.	<div>  0 SECONDS            59 SECONDS         </div> <div>  1 MINUTE            2 MINUTES         </div>
	PO - Approaching/deceleration speed during opening. [V]	<div>  MIN            MAX         </div>
	PC - Approaching/deceleration speed during closing. [V]	<div>  MIN            MAX         </div>
	OB - Deceleration/braking time during opening. [s]	<div>  MIN            MAX         </div>
	CB - Deceleration/braking time during closing. [s]	<div>  MIN            MAX         </div>
	DS - Setting of display viewing mode. 00 - No display 01 - Commands and safety devices with radio test (see paragraph 10.2) 02 - Automation status (see paragraph 10.1) 03 - Commands and safety devices (see paragraph 10.2)   <b>NOTE:</b> setting 01 allows to view the reception of a radio transmission for checking its range.	<div>  NONE            RADIO TEST         </div> <div>  STATUS            COMMANDS         </div>
	D6 - Selecting device connected to terminals 1-6. NO - None SE - Safety edge PH - Photocells	<div>  NONE            EDGE         </div> <div>  PHOTOCELLS         </div>
	D8 - Selecting device connected to terminals 1-8. NO - None SE - Safety edge PH - Photocells	<div>  NONE            EDGE         </div> <div>  PHOTOCELLS         </div>

Display	Description	
	<p>SM - Selection of the operating mode of photocell terminals 1-6. (only with  ► .</p> <p>00 - During manoeuvre, the opening of the safety contact stops movement with disengagement.</p> <p>01 - During manoeuvre, the opening of the safety contact stops movement with disengagement. When the contact is reclosed the interrupted manoeuvre resumes.</p> <p>02 - During manoeuvre, the opening of the safety contact stops movement with disengagement. When the contact is reclosed an opening manoeuvre starts.</p> <p>03 - During a closing manoeuvre, the opening of the safety contact reverses the movement.</p>	<div>   STOP + DISENGAGE </div> <div>   STOP + RESUME </div> <div>   STOP + OPENING </div> <div>   REVERSE CLOSING </div>
	<p>TN - Setting intervention temperature for NIO anti-freeze system. [°C]</p> <p>Adjustment of the working temperature of the control panel. DOES NOT refer to outside temperature.</p>	<div>   -6 °C </div> <div>   +6 °C </div>
	<p>TB - View control panel temperature.</p> <p><b>DO NOT USE</b></p>	<div>   OFF </div> <div>   ON </div>
	<p>OL - Selecting open gate indicator light mode.</p> <p>When set ON, the light is switched off when automation is closed; it is switched on when automation is open and during the opening and closing phases.</p> <p>When set OFF the light is switched off when automation is closed; it is switched on when automation is open , it flashes during the opening and closing phases.</p>	<div>   FLASHING </div> <div>   ON </div>



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

## 10. DISPLAY VIEWING MODE



**WARNING:** it is possible that, owing to the type of automation and control panel, certain menus are not available.

### 10.1 Automation status display



**Warning:** the automation status display mode is visible only with the *Display viewing mode* set on 02.

AP. ▶ DS ▶ 02

Display	Description
	Automation closed.
	Automation open.
	Automation stopped in intermediate position.
	Automation closing.
	Automation opening.
	Automation closing from partial opening.
	Automation in partial opening.
	Automation partially open.

### 10.2 Commands and safety devices display





















**WARNING:** the commands and safety device display mode is only visible with the *Display viewing mode* set on 01 or 03.

AP. ▶ DS ▶ 01

AP. ▶ DS ▶ 03

Display	Description
	1-2 - Automatic closing activation command.
	1-3 - Opening command.
	1-4 - Closing command.
	1-5 - Step-by-step command.





	1-6 - Safety with opening and closing stop.
	1-8 - Safety with closing reversal.
	1-9 - STOP command.
	P3 - Partial opening command.
	3P - Hold-to-run opening command.
	4P - Hold-to-run closing command.
	RX - Radio reception (of any memorised transmitter key present in the memory module).
	NX - Radio reception (of any key not memorised).
	CX - AUX coupling board command reception.
	F1 - Generic limit switch relating to motor 1.
	F2 - Generic limit switch relating to motor 2.
	O1 - Detection of an obstacle by motor 1 or arrival of motor 1 at mechanical stop.
	O2 - Detection of an obstacle by motor 2 or arrival of motor 2 at mechanical stop.
	RV - Enablement/disablement of built-in radio receiver via JR5.
	MQ - Acquisition of mechanical stops in progress.
	HT - Heating of the motors (NIO function) in progress.
	J1 - Variation of the JR1 jumper status.
	1C - Closing manoeuvre 1 wing at a time.

### 10.3 Alarms and anomalies display



**WARNING:** alarms and anomalies are displayed when any display selection is made. The signaling of alarm messages takes priority over all other displays.

Type of alarm	Display	Description	Remedy
Mechanical alarm		M0 - Automation type not selected.	If the dedicated memory module is present press  . Select a type of automation.
		MB - Absence of motor 1 during an operation.	Check the connection of motor 1.
		MC - Absence of motor 2 during an operation (if 2-motor functioning has been set).	Check the connection of motor 2.
		MD - Irregular functioning of motor 1 opening limit switch.	Check the connection of the motor 1 opening limit switch.
		ME - Irregular functioning of motor 1 closing limit switch.	Check the connection of the motor 1 closing limit switch.
		MF - Irregular functioning of motor 2 opening limit switch.	Check the connection of the motor 2 opening limit switch.
		MG - Irregular functioning of motor 2 closing limit switch.	Check the connection of the motor 2 closing limit switch.
		MH - Incorrect wings overlap.	Verify that the motor which opens first (M1) is connected as shown in fig. 1.
		MI - Detection of third consecutive obstacle.	Check for the presence of permanent obstacles along the automation path.
Radio operations alarm		R0 - Insertion of a memory module containing more than 100 memorized transmitters. <i>Warning: the  ►  ►  setting is automatic.</i>	To save the set configurations in the memory module, cancel a few memorized transmitters to bring the total lower than 100. Set  ►  ►  .
		R3 - Memory module not detected.	Insert a memory module.
		R4 - Memory module not compatible with control panel.	Insert a compatible memory module.

Type of alarm	Display	Description	Remedy
Accessories alarm		A0 - Failure of test of safety sensor on contact 6.	Check the device SOFA1-A2 is working correctly. If the supplementary SOF card is not inserted, check the safety test is disabled.
		A3 - Failure of test of safety sensor on contact 8.	Check the device SOFA1-A2 is working correctly. If the supplementary SOF card is not inserted, check the safety test is disabled.
		A7 - Incorrect connection of contact 9 to terminal 41.	Connect the 1-9 contact
Service		V0 - Request for maintenance intervention.	Proceed with the scheduled maintenance intervention.






## 11. STARTING



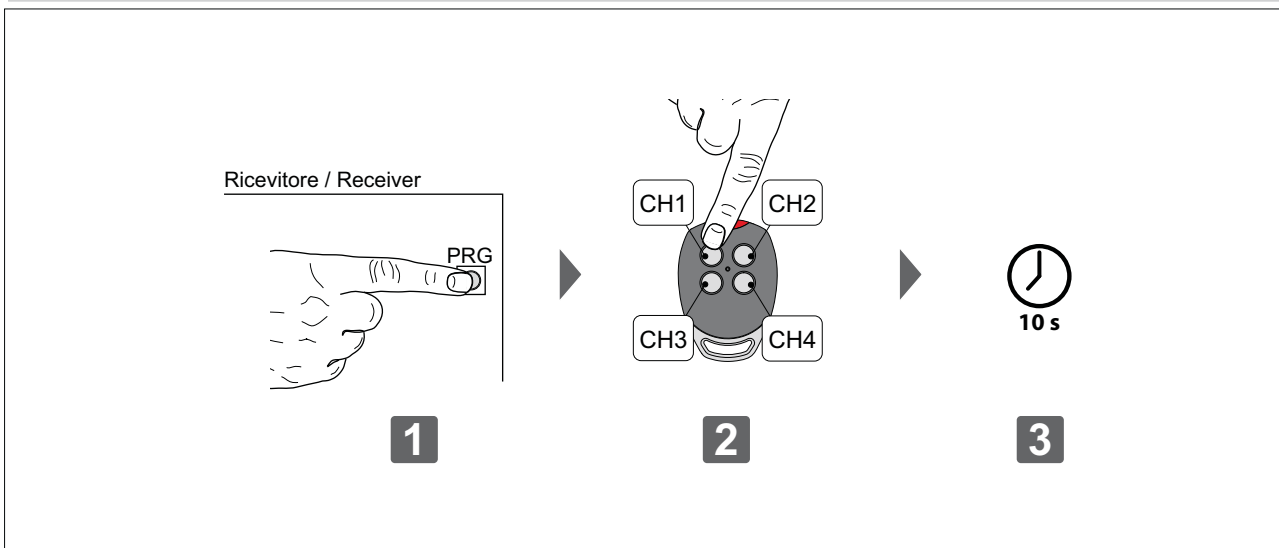
**WARNING:** the system must have mechanical doorstops of appropriate strength or limit switches must be installed.



**WARNING:** if this control panel is being used to replace a faulty one, it is possible to reset the last automation configuration by inserting the storage module of the old control panel in the housing on the new one, then loading the last configuration set with the **SF** ► **RL** command.

- 11.1 Make a jumper for safety contacts 1-6, 1-8, 1-9. Set JR1=ON, JR5=ON.
- 11.2 If limit switches are used, adjust them by manually moving the wings as described here:
- deceleration limit switch: activation of the limit switch must occur before the mechanical doorstop,
  - stop limit switch: activation of the stop limit switch must occur in the open/close position of the wings,
  - proximity limit switch: activation of the proximity limit switch must occur near the mechanical doorstop.
- 11.3 Switch on power.  
*Warning: the following operations are performed with no safety devices.*
- 11.4 If the dedicated memory module is present, press , if it is not present, load the **SF** ► **RC** configuration related to the type of automation installed.
- 11.5 If the automation has 1 door wing, set **BC** ► **NW** ► **1**.
- 11.6 Verify the **BC** ► **VS** ► **ON** setting.
- 11.7 With the automation idle in the intermediate position, give a closing command  + , and check the door wings move in the correct direction. In the event of an incorrect connection, invert the polarity of the motor.  
*Note: the first closing operation after a power supply interruption is carried out with one door wing at a time, at reduced speed.*
- 11.8 Give an opening command  +  and verify that the automation carries out the operation at reduced speed stopping at the mechanical doorstops during the opening phase.
- 11.9 Load the predefined setting most suitable for system available in the **AT** menu.
- 11.10 If limit switches are used, define their use by means of settings **BA** ► **FA** and **BA** ► **FC**.
- 11.11 In order to save the configurations in the memory module it is necessary to set **RQ** ► **MU** ► **10**.
- 11.12 To modify the operation and deceleration speed settings, the automatic closing times, and the thrust on obstacles, consult the menus.
- 11.13 Connect the safety devices (removing all relevant jumpers) and verify their correct operation.  
*Note: ensure that the forces exerted by the door wings are compliant with EN12453-EN12445 regulations.*
- 11.14 If desired, memorize the radio commands with command **RQ** ► **SR** (refer to chapter 12).
- 11.15 Connect any other accessories and check operation.
- 11.16 Once the start up and check procedures are completed, close the container.

## 12. RADIO RECEIVER OPERATION



The control panel is equipped with a radio receiver with a frequency of 433.92 MHz.

The antenna consists of a rigid wire, 173 mm long, connected to the ANT clamp.

It is possible to increase the range of the radio by connecting the antenna of the flashing lights, or by installing the tuned BIXAL antenna.

**NOTE:** to connect the external antenna to the control panel, use a coaxial cable type RG58 (max 10 m).

Check that the storage module is inserted on COM connector of the control panel.

Up to 100 remote controls can be stored in the storage module.

**WARNING:** if the radio receiver on the control panel is not used, set JR5=OFF and remove the storage module.

### Transmitter storage:

- press the PRG button on the radio receiver or on the control panel; the SIG LED lights up;
- make a transmission by pressing one of the desired CH buttons of the transmitter (within the range of the radio receiver). The transmitter is now stored. During this phase, the SIG LED flashes. When the SIG LED is again lit up, it is possible to validate another transmitter. Validate all the new transmitters by making a transmission as indicated;
- you automatically exit the procedure 10 seconds after the last transmission, or you can press the PRG button again (the SIG LED goes off).

Up to four CH keys of a single remote control can be stored:

- if only one (any) CH key of the remote control is stored, command 1-5 (step-by-step/opening) is carried out;
- from two to four CH keys of a single remote control are stored, the functions matched with the CH keys are as follows:
  - CH1 = command 1-5 step-by-step/opening;
  - CH2 = partial opening command, it causes the automation to open for about 1 m;
  - CH3 = command to switch on/off the courtesy light;
  - CH4 = stop command, equivalent to impulsive command 1-9.

### Transmitter cancellation:

- keep pressed for 3 s the PRG button on the radio receiver or on the control panel, the SIG LED begins to flash;
- to erase all the transmitters from the memory of the radio receiver keep pressed for 3 s again the PRG button;
- to erase a single transmitter, press one of the previously stored CH keys of the transmitter to be erased;
- the cancellation is confirmed by the quick flashing of the SIG LED.

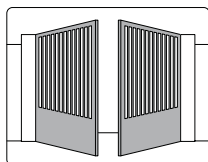
For further information see the user manual for GOL series transmitters.

If the control panel is replaced, the storage module being used can be inserted in the new control panel.

**WARNING:** the storage module must be inserted and removed with the power supply disconnected.



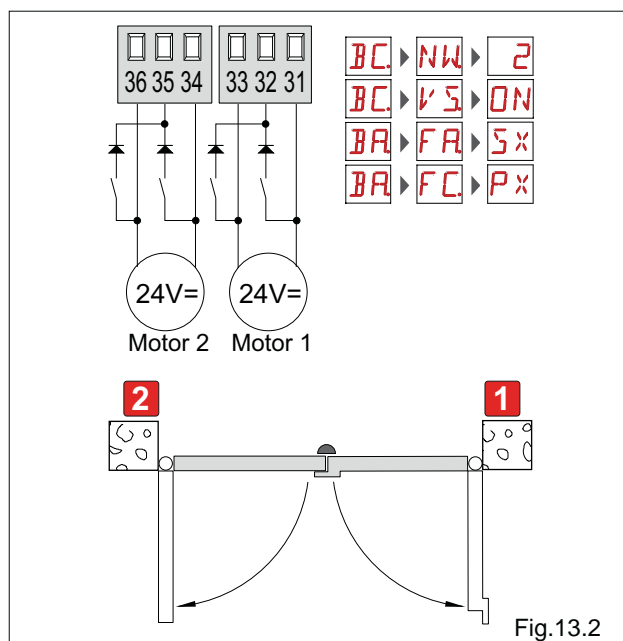
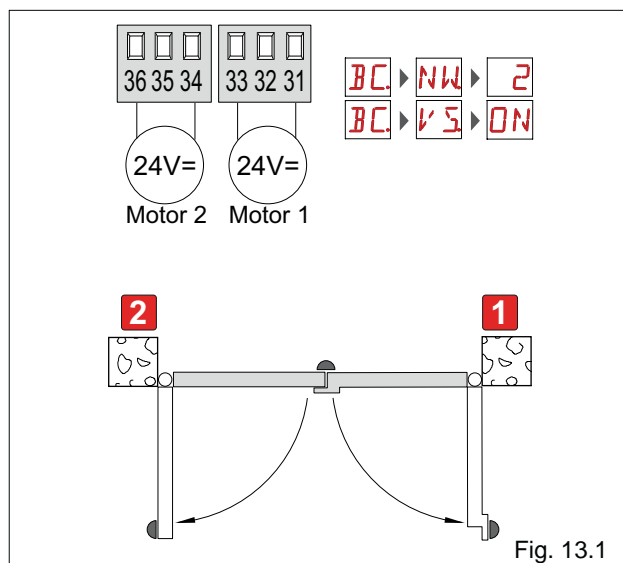
### 13. EXAMPLE APPLICATION OF AUTOMATION WITH TWO SWINGING DOOR WINGS



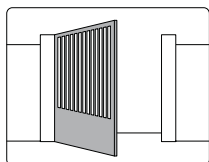
When the E2H control panel is used in applications for double wings automations with overlapping it is possible to make the following connections.

(Fig. 13.1) Installation with mechanical doorstops in opening and closing phases, without the use of electric limit switches.

(Fig. 13.2) Installation with mechanical doorstop in closing phases, with the use of electric limit switches.



## 14. EXAMPLE APPLICATIONS FOR AUTOMATION WITH ONE SWINGING DOOR WING



When the E2H control panel is used in applications for single wing automations it is possible to make the following connections.

(Fig. 14.1) Installation with mechanical doorstops in opening and closing phases, without the use of electric limit switches.

(Fig. 14.2) Installation with mechanical doorstop in closing phases, with the use of electric limit switches.

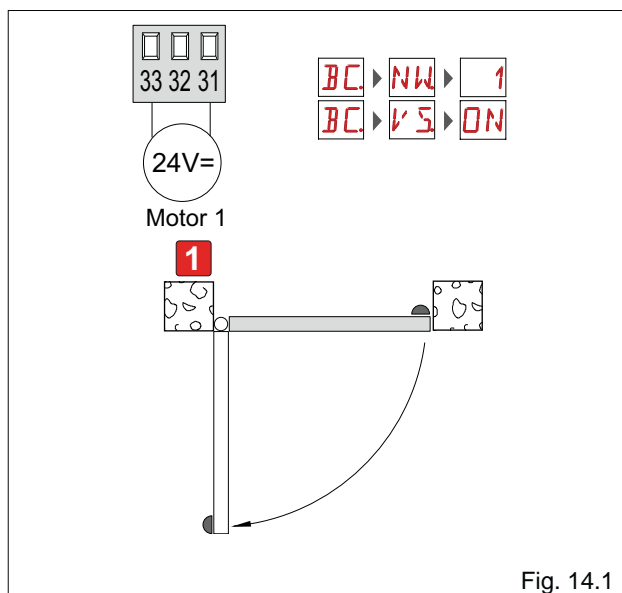


Fig. 14.1

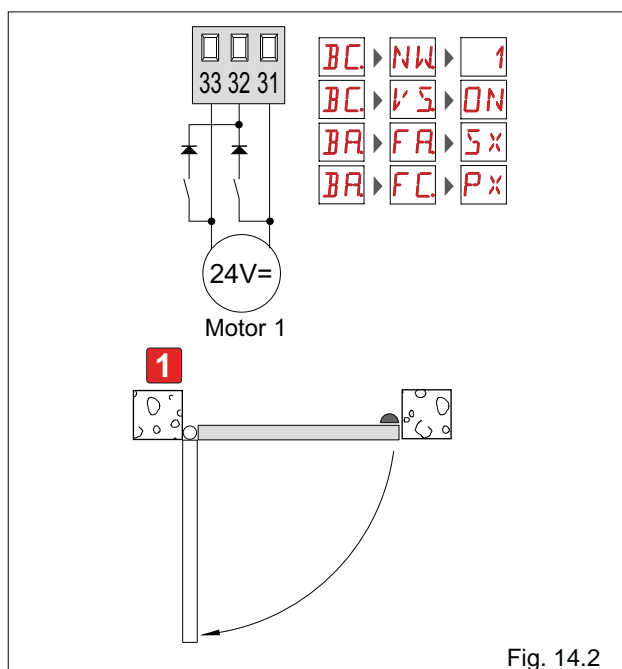


Fig. 14.2





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